

## **Launch Mission Execution Forecast**

Mission: Falcon 9 Starlink-L26

**Issued**: 14 May 2021 / 0800L (1200Z)

**Valid**: 15 May 2021 / 1824 – 1925L (2224 – 2325Z)



**Forecast Discussion**: Cooler and drier air has moved into central Florida as a front passed through yesterday and high pressure builds to the north. With the high centered over the mid-Atlantic coast and the front well to our south, a relatively strong pressure gradient will create a breezy, northeasterly flow on Saturday. Due to the onshore winds increasing the low level moisture, there will likely be isolated showers moving off the Atlantic, but dry air in the mid-levels combined with sinking air behind the sea breeze should limit their growth to be nothing more than a flight-through constraint. Therefore, the main concerns for Saturday's attempt are liftoff winds and the Cumulus Cloud Rule.

For Sunday, there will be marginally improved conditions as the high pressure slowly slides southeast and remains in control. While it will still be breezy, winds will decrease slightly and shift gradually more to the east. Similarly to Saturday, sinking, dry air in the mid-levels will continue to limit the growth of any onshore moving showers that develop over the Atlantic. Thus, the main concerns will remain liftoff winds and the Cumulus Cloud Rule.

|   | Probability of Violating Weather Constraints            |  |                      |       |                          |           |           |                          |                                  |          |
|---|---|--|----------------------|-------|--------------------------|-----------|-----------|--------------------------|----------------------------------|----------|
| Day   | 30%   | 0% Primary Concerns: Liftoff Winds, Cumulus Cloud Rule |                      |       |                          |           |           |                          |                                  |          |
| ch  | Weather Conditions                                      |  |                      |       |                          |           |           |                          | Additional Risk Criteria         |          |
| aunch   | Weather/Visibility:                                     |  | Iso'd Showers /7 mi. |       | Clouds Type Coverage Bas |           | Base (ft) | Tops (ft)                | Upper-Level Wind Shear:          | Low      |
| Ĭ   | Temp/Humid  | ity:   | 73°F / 75%           | •     | Cumulus                  | Scattered | 3,000     | 10,000                   | Booster Recovery Weather:        | Moderate |
|   | Liftoff Winds (200'): 06                                |  | 060° 20 - 2          | 5 mph |                          |           |           |                          | Solar Activity:                  | Low      |
|   | Probability of Violating Weather Constraints            |  |                      |       |                          |           |           |                          |                                  |          |
| Delay   | 20% Primary Concerns: Liftoff Winds, Cumulus Cloud Rule |  |                      |       |                          |           |           |                          |                                  |          |
|   | Weather Conditions                                      |  |                      |       |                          |           |           | Additional Risk Criteria |                                  |          |
| 24-Hour   | Weather/Visibility: None / 7 mi.                        |  |                      | Туре  | Clouds<br>Coverage       | Base (ft) | Tops (ft) | Upper-Level Wind Shear:  | Low                              |          |
| 24  | Temp/Humidity: 74°F / 7                                 |  |                      | )     | Cumulus                  | Scattered | 3,500     | 7,000                    | <b>Booster Recovery Weather:</b> | Low      |
|   | <b>Liftoff Winds (200')</b> : 070° 15 - 20 mph          |  |                      |       |                          |           |           | Solar Activity:          | Low                              |          |
| Note: The Probability of Violation (POV) is the chance that a Lightning Launch Commit Criteria (LLCC) or certain user constraints (surface winds, precipitation, and temperatures, etc.) will be violated during the launch window. It does not take into account upper-level wind shear, booster recovery weather, and solar activity. |   |  |                      |       |                          |           |           |                          |                                  |          |
| Next Forecast Will Be Issued  |   |  |                      |       |                          |           |           |                          |                                  |          |